

## REMARKS

The Applicant does not believe that entry of the accompanying response will result in the introduction of new matter into the present application for invention. Therefore, the Applicant, respectfully, requests that the accompanying response be entered in and that the claims to the present application, kindly, be reconsidered.

The Final Office Action dated September 24, 2004 has been received and considered by the Applicant. Claims 1-22 are pending in the present application for invention. Claims 1-8 and 11-22 stand rejected by the September 24, 2004 Final Office Action. Claims 9-12 are objected to by the September 24, 2004 Final Office Action.

The Office Action rejects Claims 1-3 and 13-15 under the provisions of 35 U.S.C. §102(b) as anticipated by Takasago et al. (hereinafter referred to as Takasago et al.).

Regarding Claim 1, the Examiner states that Takasago et al. disclose in FIG. 1 examining of a record carrier for the presence of a defect. The Examiner further states that Takasago et al. at column 5, lines 47-column 6, line 14 teach rating the track. The Applicant, respectfully, disagrees. Takasago et al. teach identifying the occurrence of an off track situation which Takasago et al. teach can be caused by a number of events. Detection and rating are two separate actions. Takasago et al. teach actions that take place when off track situations occur. Takasago et al. do not provide any teaching or suggestion for the detection of a defect that does not result in an off track situation. In fact Takasago et al. at column 5, lines 47-column 6, line 14 teach that if a defect occurs or is detected without causing an off track situation, then the defect is acceptable and no action takes place .

The Applicant, respectfully, points out that Takasago et al. teach identifying the occurrence of an off track situation which Takasago et al. teach can be caused by a number of events including movement of the disc/player or lack of a level surface. A defect in the optical disc is only one of the situations that can cause an off track situation as taught by Takasago et al. (see column 3, lines 28-60). Takasago et al. teach detection of an off track situation and not detection of defects within the disc. In contradistinction to the teaching of Takasago et al., the present invention as recites by the rejected claims defines subject matter for rating of tracks on the disc for the purpose of determining if there is a defect in the track. Takasago et al. provide no teaching, suggestion or motivation for rating of a track for a defect. Takasago et al. examines

the track signal to determine if there is an off track situation which could be the result of a vibration (see column 3, lines 1-6). Takasago et al. provide no teaching for rating the track for defects. Accordingly, the rejection to Claim 1 is respectfully traversed.

Regarding Claim 2, the Examiner states that column 5, line 47-column 6, line 14 of Takasago et al. disclose that a track is determined as being defective if the absolute value of the tracking signal exceeds a predetermined threshold. The Applicant points out that column 5, line 47 to column 6, line 14 of Takasago et al. discuss tracking errors determined by application of a tracking signal to a pair of comparators. The tracking signal as taught by Takasago et al. that results from the light spot tracking near the center of the track results in each comparator yielding a logical "0" indicative of proper tracking. The tracking signal as taught by Takasago et al. can result from the light spot the digressing from the center of the track resulting in a tracking signal having an amplitude larger than  $+V_{REF}$  or  $-V_{REF}$ . That portion of the tracking signal having an amplitude with an absolute value that is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$  results the one of the comparators yielding a logical "1" for the period of time that the absolute value of the tracking signal is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$ ; which is interpreted as not tracking properly. The Applicant respectfully asserts that the comparator of Takasago et al. providing a logical "1" is not equivalent to rating a track as defective, much less rating a track as defective if the absolute value exceeds a predetermine value for a predetermined time as recited by rejected Claim 2. Takasago et al. clearly teach that the comparator yielding a logical "1" identifies track digression. Takasago et al. clearly teach corrective actions that take place once track digression becomes off track. Takasago et al. do not disclose or suggest rating the tracks.

The tracking signal taught by Takasago et al. can also be determined as the light spot being off track resulting in multiple logical "1" pulses. The multiple logical "1" pulses results from a waveform as shown in FIG 3b of Takasago et al. There is no disclosure, or suggestion, within Takasago et al. for rating a track as being defective as stated by the Examiner in the Final Office Action. Moreover, there is no disclosure, or suggestion, within Takasago for determining that a track is defective if the absolute value that the tracking signal is greater than a predetermined threshold. Simply put, Takasago et al. determines if the light spot is on track or off track, not whether the track is defective or not. Accordingly this rejection is, respectfully, traversed.

Regarding Claim 13, the Examiner states that Takasago et al. disclose at column 5, lines 5-20; column 5, line 47- column 6, line 14, monitoring a recording track to provide a rating of defects contained on the track. As previously discussed, Takasago et al. do not teach or suggest rating a track. Column 7, lines 6-19 of Takasago et al. teach an action that can take place on the determination of the light spot being off track based on the level of the tracking signal. The Applicant's position is that the categorization of a tracking signal as being indicative of the light spot being off track as taught by Takasago et al. is not equivalent to "rating the track" as recited by the rejected claims. The Applicant, respectfully, submits that Claim 13 is allowable over the cited reference. Takasago et al.

Regarding Claim 14, the Examiner states that Takasago et al. disclose that the recording is discontinued if the tracking signal exceeds a predetermined value for a predetermined period of time at column 5, line 47- column 6, line 14. The Applicant, respectfully, points out that column 5, line 47 - column 6, line 14 of Takasago et al. teach that if the digression of the tracking signal reaches a certain level, an indication that tracking signal is off track will result by multiple logical "1" pulses being emitted. The multiple logical "1" pulses result from a sway in the tracking signal as shown in FIG. 3b, reference numeral 16, of Takasago et al.; which is not equivalent to exceeding a predetermined threshold for a predetermined period of time. The additional period of time referred to by Takasago et al. is the additional logical "1" pulses themselves and not a period of time that the tracking signal exceeds a threshold. The Applicant respectfully points out that rejected Claim 14 defines subject matter that if the tracking signal itself exceeding a predetermined value for a predetermined time, then the recording process is discontinued.

The Applicant further points out that Takasago et al. teach that if the duration of time exceeds another time period, T2, then the off-track signal is sent to a latch circuit 28 (see column 6, lines 7-13). The output signal 39 of latch circuit 28 indicating the off-track signal results not in the recording being halted, but that recording continues in a different area (see column 6, lines 60-68). However, in either case i.e. the time width of the logical "1" being greater than T1 but less than T2, or the time width of the logical "1" being greater than T2, it is the logical "1" pulse for which the time duration is measured and not the time period of the tracking signal. Therefore, this rejection is, respectfully, traversed.

Regarding Claim 3 and 15, the Examiner's position is that  $V_{REF}$  within Takasago et al.

corresponds to a preselected fraction of the maximum value. The Applicant, respectfully, points out that the maximum value recited by rejected Claim 3 and 15 corresponds to a maximum lateral deviation with respect to the center of the track. Accordingly, the preselected fraction of the maximum value as defined by rejected Claims 3 and 15 corresponds to a portion of the maximum lateral deviation from the center of the track. The Applicant can not concur with the Examiner's position that  $V_{REF}$  as taught by Takasago et al. is equivalent a preselected fraction of the maximum value corresponding to a portion of the maximum amount of lateral deviation from the center of the track. The Applicant draws the Examiner's attention to the clear teaching of Takasago et al. on column 5, lines 47-49 wherein it is stated that the tracking error signal is compared with reference voltages. There is no disclosure or suggestion within Takasago et al. for taking any fractional portion of the reference voltages as the predetermined threshold. Furthermore, the maximum lateral deviation disclosed by Takasago et al. is the occurrence of an off track situation and the tracking error signal taught by Takasago et al. The tracking error signal does not have a greater value during the period of off track. Takasago et al. teach that during off track (maximum lateral deviation), the tracking error signal swings from plus to minus exceed the reference voltages, but the tracking error signal is no greater than in the discussed track digressions (see FIG. 3a and FIG. 3b). A person skilled within the art would not be motivated by the teaching of Takasago et al., as illustrated in FIG. 3a and FIG. 3b of that reference, to create a system as defined by rejected Claims 3 and 15 to select a predetermined threshold for the tracking signal that is a fraction of the a maximum value, wherein the maximum value corresponds to the maximum lateral deviation with respect to the center of the track. There is no teaching within Takasago et al. for the tracking error signal value to have a maximum value that occurs at a point of the maximum lateral deviation from the center of the track. Takasago et al. teach that the error tracking signal swings from positive to negative during off track conditions. There is not even a mention of using a fractional potion of the reference voltages, or that the reference voltages are a fractional portion of a predetermined threshold as asserted by the Examiner. Accordingly, this rejection of Claims 3 and 15 is respectfully traversed.

The Office Action rejects Claims 4, 16-19, 21, and 22 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago et al. applied to claims 2, 14 and 15 above.

Regarding Claims 18 and 21, the Examiner states that Takasago et al. disclose at column 5, lines 49 - 51 a tracking signal having a nominal value of zero, and that the tracking signal has

a maximum value. The Examiner also asserts that a preselected fraction of the maximum value is chosen as the predetermined signal threshold; which as previously discussed is an unfounded assertion. The Applicant points out that the Examiner continues to read the reference voltage,  $V_{REF}$ , of Takasago et al. as being equivalent to the predetermined thresholds of the invention and also as being equivalent to the preselected fractions of the predetermined threshold. As discussed above, there is no teaching within Takasago et al. for the tracking error signal value to have a maximum value that occurs at a point of maximum lateral deviation from the center of the track. Takasago et al. teach that the error tracking signal swings from positive to negative during off track conditions. There is not even a mention of using a fractional portion of any reference voltage as a predetermined threshold as asserted by the Examiner. The Applicant, respectfully, requests that the Examiner indicate where within Takasago et al. there is any disclosure or suggestion that  $V_{REF}$  is a fraction portion of anything. More, specifically the Applicant, respectfully, requests that the Examiner indicate within Takasago et al. where there is any disclosure or suggestion that  $V_{REF}$  is a fraction portion of a maximum value indicative of the maximum lateral deviation.

The Examiner admits that Takasago et al. is silent regarding the predetermined threshold being either 0.5 or 2/3 of the maximum value corresponding to the maximum lateral deviation. The Examiner further states that Takasago et al. show an unspecified maximum value and an unspecified fraction of the maximum value in Fig. 3a. The Applicant respectfully disagrees. Takasago et al. show  $V_{REF}$  and that the signal can exceed  $V_{REF}$ . There is no disclosure or suggestion within Takasago et al. that  $V_{REF}$ , as taught therein, is a fractional portion of any value.

The Examiner then states that the Applicant has failed to show the recitation for the predetermined threshold being either 0.5 or 2/3 of the maximum value corresponding to the maximum lateral deviation is used for a particular purpose, or solves a stated problem. Initially, the Applicant, respectfully, points out that the Examiner has not provided any authority that allows for this line of reasoning to be used within an obviousness rejection. Moreover, the Applicant points out that there is a clear purpose and advantage to the stated limitations in that the present invention is rating the track.

The Applicant draws the Examiner's attention to page 10, lines 4-8 of the specification of the present invention wherein the tracking error of 0.5 of the maximum value is disclosed as the preferred error tracking parameter to if the track is defective. Accordingly, there is a stated

purpose to the tracking error of 0.5 of the maximum value as recited by rejected Claim 18 contrary to the assertions of the Examiner. The limitations of the claims must each be given consideration. The Examiner may not simply brush aside specific limitations by reading the same reference voltages of Takasago et al. on the predetermined threshold and the specifically different recitations of the preselected fractions that are used to determine that predetermined threshold. The Applicant, respectfully, submits that the reason that Takasago et al. do not disclose, or suggest using fractions of the reference voltages is that Takasago et al. has no such stated purpose for rating the track for defects..

The Applicant draws the Examiner's attention to the specification of the present invention at page 12, lines 14-22 wherein the value of  $\frac{2}{3}$  is discussed as preventing accidental writes to the adjacent track. Accordingly, there is a stated purpose to  $\frac{2}{3}$  fractional amount recited by rejected Claim 21 contrary to the assertions of the Examiner. The Applicant points out that of the cited reference, Takasago et al. has no such stated purpose. The Applicant, respectfully, submits that the reason that Takasago et al. do not disclose, or suggest using fractions of the reference voltages is that Takasago et al. has no such stated purpose for preventing accidental writes to the adjacent track..

Accordingly, the rejection to Claims 18 and 21 is traversed.

Regarding Claims 4, 16, 19 and 22, the Examiner admits states that Takasago et al. do not disclose the predetermined time periods recited by the rejected claims in a range between 50  $\mu\text{s}$  and 75  $\mu\text{s}$ . Furthermore, regarding claims in 19 and 22, the Examiner states that Takasago et al. do not disclose that the recited period of time is approximately 60  $\mu\text{s}$ . The Applicant, respectfully, points out that Final Office Action does not even contend that Takasago et al. suggest implementing any of the foregoing time periods. The Examiner's position is that it would have been obvious for a person of ordinary skill in the art because the Applicant has not disclosed any advantage to these time periods. Initially, the Applicant objects to the line of reasoning used in this rejection because the Examiner has not provided any authority that such a line of reasoning is valid for making a rejection based on obviousness. Moreover, the advantages are clearly stated in the specification. The advantage of recited period of time is approximately 60  $\mu\text{s}$  is given by the specification of the present invention at page 12, lines 14-22 wherein the value of 60  $\mu\text{s}$  is discussed as preventing accidental writes to the adjacent track. The range between 50  $\mu\text{s}$  and 75  $\mu\text{s}$  is used as a range around the preferred value of 60  $\mu\text{s}$  as an

acceptable range. The Applicant's position is that the Examiner has employed improper hindsight in this obviousness analysis. In order to determine obviousness there must be some suggestion of motivation of the prior art to make the modification. There has been no such suggestion of motivation within the prior art referenced by the Examiner to make the modification made in the Final Office Action. The Examiner has also not advanced any authority to support the assertion made in the Final Office Action that the foregoing rationale is a proper rationale for determining obviousness.

The MPEP at §2143 states that to "establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." The Applicant respectfully points out that the Final Office Action does not satisfy any of the three foregoing criteria and, therefore, has not made a *prima and facie* case of obviousness. Moreover, the motivation to make the modification suggested by the Examiner must be found within the prior art reference, and the Examiner has in fact stated that is not found within Takasago et al. The Applicant, respectfully, asserts out that a person skilled in the art would not be motivated by the teaching of Takasago et al. to make the modification suggested by the Final Office Action. Takasago et al. pertains to identifying digressions within the tracking signal and correcting tracking errors. Takasago et al. does not pertain to identifying defective areas on a disk. For the foregoing reasons, this rejection is respectfully traversed.

The Final Office Action rejects Claim 17 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago et al. The Applicant, respectfully, submits that the arguments presented within the Final Office Action that Claim 17 substantially corresponds to other claims, such as Claim 13, is incorrect. There are numerous elements within Claims 14, 15, 16 and 17 that are not found within Claim 13. The Applicant responds to this rejection by pointing out that Takasago et al. do not disclose or suggest performing the actions recited in Claims 13-17. Specifically, Takasago et al. do not disclose the predetermined time periods recited by the

rejected claims in a range between 50  $\mu$ s and 75  $\mu$ s. Furthermore, Takasago et al. do not disclose or suggest a recording device having thresholds that are a preselected fraction of the signal level representative of the maximum deviation of from the center of the track. Takasago et al. do not disclose or suggest a recording device that discontinues recording if the tracking signal exceeds a threshold for a predetermined period of time. Accordingly, this rejection is respectfully, traversed.

The Final Office Action rejects Claims 5 and 6 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago et al. in view of Tsuchiya et al. (JP 01253638 A). The Examiner admits that Takasago et al. do not disclose the steps of a) examining the integrity of predetermined test tracks of the record carrier, b) examining the integrity of tracks adjacent the relevant test track each time that upon the examination of the test track it appears to be defective, in order to determine this way the number of tracks affected by the same spot defect, c) entering the relevant tracks in a defect list each time that the number thus determined in step (b) is greater than a predetermined threshold value, and d) storing the defect list into a memory. The Examiner's position is that Tsuchiya et al. teach the foregoing recited elements. The Applicant respectfully disagrees. Tsuchiya et al. teach a reference value WC that is set to have the magnitude of defect smaller than a normal checking reference. The defects are detected using a regenerated signal RF, the tracking error signal TE and a focused error signal FE within a single track. Tsuchiya et al. teach the recording of each defect that exceeds the reference value WC within a memory and then reads the contents of the memory, which includes each individual defect. The Applicant, respectfully, points out that this is not equivalent to the recitation within the rejected claims of c) entering the relevant tracks to any defect list each time that the number thus determined in step (b) is greater than a predetermined threshold value. Tsuchiya et al. teach recording of each individual defect within a track. There is no suggestion or disclosure within Tsuchiya et al. for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold. Accordingly, this rejection is respectfully, traversed.

Claim 6 defines subject matter for a predetermined number of tracks being skipped between successive test tracks. The Applicant, respectfully, points out that Tsuchiya et al. disclose scanning tracks in a skipping mode, however, there is no disclosure or suggestion within



Tsuchiya et al. for skipping a predetermined number of tracks between successive test tracks. Accordingly, this rejection is respectfully, traversed.

The Final Office Action rejects Claims 7, 8 and 20 under the provisions of 35 U.S.C. §103(a) as being unpatentable over the combination of Takasago et al. with Tsuchiya et al and further in view of U.S. Patent No. 4,821,521 issued to Hosoya (hereinafter referred to as Hosoya).

As previously discussed, the combination of Takasago et al. with Tsuchiya et al. provides no disclosure or suggestion for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold. The addition of Hosoya to the combination of Takasago et al. and Tsuchiya et al does nothing to correct this error. Hosoya at column 6, lines 22-25 discloses storing defective sector information in the optical disk. The Applicant respectfully points out that Claim 7 includes all the features of Claim 5 and that the defect list as recited by Claim 5 only includes tracts affected by the same spot defect wherein the number of tracts is greater than a predetermined threshold. The cited references, alone or in combination, do not disclose or suggest the foregoing features of creating a defect list as recited by Claim 5 that includes tracts affected by the same spot defect wherein the number of tracts is greater than a predetermined threshold. Accordingly this rejection is, respectfully, traversed.

Regarding the rejection to Claim 8 under the provisions of 35 U.S.C. §103(a) as being unpatentable over the combination of Takasago et al. with Tsuchiya et al and further in view of Hosoya. The combination of Takasago et al. with Tsuchiya et al. teaches recording each individual defect within a track. There is no suggestion or disclosure within Tsuchiya et al for providing a threshold value to determine the number of tracks that are affected by the same spot defect in only recording those defects that are at least as large as the threshold. The addition of Hosoya to the combination of Takasago et al. and Tsuchiya et al does nothing to towards providing a threshold value to determine the number of tracks that are affected by the same spot defect in only recording those defects that are at least as large as the threshold. Hosoya, at column 2, lines 64-68 and FIG. 7, teaches referring to defective sector information in the optical disk. The Applicant respectfully points out that Claim 8 includes all the features of Claim 5 and that the defect list as recited by Claim 5 only includes tracts affected by the same spot defect wherein the number of tracts is greater than a predetermined threshold. The cited references,

either alone or taken in combination, do not disclose or suggest the foregoing features of creating a defect list as recited by Claim 5 that includes tracts affected by the same spot defect wherein the number of tracts is greater than a predetermined threshold. Accordingly this rejection is, respectfully, traversed.

The Final Office Action rejects Claim 20 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago in view of Tsuchiya et al. The Applicant, respectfully points out that there is no suggestion or disclosure within Tsuchiya et al for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold as recited by Claim 5. Accordingly, the rejection of Claim 5, as previously discussed, is believed to be in error. Claim 20 depends from Claim 5; therefore, Claim 20 is also believed to be allowable.

### **Response to Arguments**

The Response to Arguments contained within the Final Office Action, beginning on page 8 states the Examiner's positions regarding the Applicant's previous arguments. The Applicant responds to the positions advanced by the Examiner in the Response to Arguments below.

Regarding Claim 1, the Examiner has taken the position that Takasago et al. on column 5, lines 44-55, teach rating the examined track on the basis of the resulting tracking signal. The Applicant, respectfully, points out that Takasago et al. on column 5, lines 44-55 teach that the tracking error signal has a large amplitude if a defect is present on the track (see column 5, lines 52-53). Takasago et al. do not teach or suggest rating the track. The Applicant, respectfully, requests that the Examiner indicate where Takasago et al. performs the alleged track rating or point to any functions that Takasago et al. related to the alleged track rating. The Applicant contends that detecting of off track situations is not a disclosure, suggestion or motivation that would lead a person skilled within the art to rate tracks as asserted by the Examiner. The Examiner states that Takasago et al. "indirectly" rate the track, the Applicant respectfully disagrees, Takasago et al. test for off track conditions. Rejected Claim1 defines subject matter for "rating the examined recording track". The Applicant, respectfully, asserts that the Examiner in inserting the subject matter defined by rejected Claim 1 into the cited prior art by making the statement that it is "indirectly" within the teaching of Takasago et al. Detection and rating are separate actions. Takasago et al. teach actions that take place when off track situations occur.

Takasago et al. do not provide any teaching or suggestion for the detection of a defect within tracks that does not result in an off track situation. In fact Takasago et al. teach that if a defect occurs or is detected without causing an off track situation, then the defect is acceptable and no action takes place (see column 5, line 52- column 6, line 14).

Regarding Claim 2, the Examiner states that tracking signal as taught by Takasago et al. that results from the light spot tracking digressing from the center of the track resulting in the comparator yielding a logical “1” meets the claimed limitation of rating the track as being defective. The tracking signal as taught by Takasago et al. can result from the light spot the digressing from the center of the track resulting in a tracking signal having an amplitude larger than  $+V_{REF}$  or  $-V_{REF}$ . That portion of the tracking signal having an amplitude with an absolute value that is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$  results the one of the comparators yielding a logical “1” for the period of time that the absolute value of the tracking signal is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$ ; which is interpreted as not tracking properly. The Applicant respectfully asserts that the comparator of Takasago et al. providing a logical “1” is not equivalent to rating a track as defective, much less rating a track as defective if the absolute value exceeds a predetermine value for a predetermined time as recited by rejected Claim 2.

Regarding Claim 13, the Applicant respectfully request that the Examiner point out where Takasago et al. provide any teaching for rating defects contained on a track. As discussed above, Takasago et al. teach that if the absolute value of the tracking signal is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$ ; the interpretation is made of improper tracking. The Examiner states that Takasago et al. teach that if the absolute value of the tracking signal is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$ ; the track is rated or classified. However, the Examiner continually refers to the absolute value of the tracking signal exceeding the absolute value of  $+V_{REF}$  or  $-V_{REF}$ ; and asserts that the track is rated or classified. The Applicant respectfully points out that Takasago et al. only determines improper tracking. There is no disclosure or suggestion of the track being rated or classified within Takasago et al.

Regarding Claim 14, Takasago et al. teach that if the duration of time exceeds time period,  $T_2$ , then the off-track signal is sent to a latch circuit 28 (see column 6, lines 7-13). The output signal 39 of latch circuit 28 indicating the off-track signal results and not in the recording being halted. Instead recording continues in a different area (see column 6, lines 60-68). The Applicant asserts that in either the case of the time width of the logical “1” being greater than  $T_1$

but less than T2; or the time width of the logical “1” being greater than T2, it is the logical “1” pulse for which the time duration is measured and not the time period of the tracking signal.

Regarding Claims 3 and 15, the Examiner states that Claims 3 and 15 do not recite a fractional portion of the reference voltage. This is true. It was the Examiner’s assertion Takasago et al. teach that the reference voltages are a fractional portion of the maximum value; which as previously discussed is an unfounded assertion. Specifically, is the Examiner’s position is that  $V_{REF}$  within Takasago et al. corresponds to a preselected fraction of the maximum value. Claims 3 and 15 correspond define subject matter for a portion of the maximum lateral deviation from the center of the track. The Applicant does not concur with the Examiner’s position that  $V_{REF}$  as taught by Takasago et al. is equivalent a preselected fraction of the maximum value corresponding to a portion of the maximum amount of lateral deviation from the center of the track. Takasago et al. on column 5, lines 47-49 state that the tracking error signal is compared with reference voltages. There is no disclosure or suggestion within Takasago et al. for taking any fractional portion of the reference voltages as the predetermined threshold. Furthermore, the maximum lateral deviation disclosed by Takasago et al. is the occurrence of an off track situation and the tracking error signal taught by Takasago et al. The tracking error signal does not have a greater value during the period of off track. Takasago et al. teach that during off track (maximum lateral deviation), the tracking error signal swings from plus to minus exceed the reference voltages, but the tracking error signal does not attain a greater value than in the discussed track digressions (see FIG. 3a and FIG. 3b). There is no teaching within Takasago et al. for the tracking error signal value to have a maximum value that occurs at a point of the maximum lateral deviation from the center of the track.

Regarding Claims 18 and 21, the Applicant respectfully submits that Takasago et al. do not disclose or suggest the predetermined threshold being either 0.5 or 2/3 of the maximum value corresponding to the maximum lateral deviation. The Applicant, respectfully, points out that the Examiner has not provided disclosure or suggestion within Takasago et al. do not disclose or suggest the predetermined threshold being either 0.5 or 2/3 of the maximum value corresponding to the maximum lateral deviation. Absent any disclosure or suggestion within the prior art for the stated limitations, Claims 8 and 21 are clearly allowable. The limitations of the claims must each be given consideration. The Examiner may not simply brush aside specific limitations by reading the same reference voltages of Takasago et al. on the predetermined threshold and then

upon different recitations of the preselected fractions that are used to determine that predetermined threshold. The Applicant, respectfully, submits that Takasago et al. do not disclose, or suggest using fractions of the reference voltages for rating the track for defects.

Regarding Claims 4, 16, 19 and 22, the Examiner admits states that Takasago et al. do not disclose the predetermined time periods recited by the rejected claims in a range between 50  $\mu$ s and 75  $\mu$ s. The Examiner's position is that it would have been obvious for a person of ordinary skill in the art because the Applicant has not disclosed any advantage to these time periods. The advantages are clearly stated in the specification. The advantage of recited period of time is approximately 60  $\mu$ s is given by the specification of the present invention at page 12, lines 14-22 wherein the value of 60  $\mu$ s is discussed as preventing accidental writes to the adjacent track. The range between 50  $\mu$ s and 75  $\mu$ s is used as a range around the preferred value of 60  $\mu$ s as an acceptable range. There is no suggestion or motivation within the prior art referenced by the Examiner to make the modification made in the Final Office Action. The Applicant respectfully points out that the authorities advanced by the Examiner are used out of context for which they are intended.

Regarding Claim 17, the issues raised by the Examiner are addressed above.

Regarding Claim 5, the Examiner admits that Takasago et al. do not disclose the steps of a) examining the integrity of predetermined test tracts of the record carrier, b) examining the integrity of tracts adjacent the relevant test track each time that upon the examination of the test track it appears to be defective, in order to determine this way the number of tracts affected by the same spot defect, c) entering the relevant tracts in a defect list each time that the number thus determined in step (b) is greater than a predetermined threshold value, and d) storing the defect list into a memory. The Examiner's position is that Tsuchiya et al. teach the foregoing recited elements. The Applicant respectfully disagrees. Tsuchiya et al. teach a reference value WC that is set to have the magnitude of defect smaller than a normal checking reference. The defects are detected using a regenerated signal RF, the tracking error signal TE and a focused error signal FE within a single track. Tsuchiya et al. teach the recording of each defect that exceeds the reference value WC within a memory and then reads the contents of the memory, which includes each individual defect. The Applicant, respectfully, points out that this is not equivalent to the recitation within the rejected claims of c) entering the relevant tracts to any defect list each time that the number thus determined in step (b) is greater than a predetermined threshold value.

Regarding Claim 6, the Applicant, respectfully, points out that Tsuchiya et al. disclose scanning tracks in a skipping mode, however, there is no disclosure or suggestion within Tsuchiya et al. for skipping a predetermined number of tracks between successive test tracks.

Regarding Claims 7, the combination of Takasago et al. with Tsuchiya et al. provide no disclosure or suggestion for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold. The addition of Hosoya to the combination of Takasago et al. and Tsuchiya et al does nothing to correct this defect within the rejection. Hosoya at column 6, lines 22-25 discloses storing defective sector information in the optical disk. Claim 7 only includes tracks affected by the same spot defect wherein the number of tracks is greater than a predetermined threshold.

Regarding Claim 8, the combination of Takasago et al. with Tsuchiya et al. teaches recording each individual defect within a track. There is no suggestion or disclosure within Tsuchiya et al for providing a threshold value to determine the number of tracks that are affected by the same spot defect in only recording those defects that are at least as large as the threshold. The addition of Hosoya to the combination of Takasago et al. and Tsuchiya et al does nothing to towards providing a threshold value to determine the number of tracks that are affected by the same spot defect in only recording those defects that are at least as large as the threshold.

Regarding Claim 20, the Applicant, respectfully points out that there is no suggestion or disclosure within Tsuchiya et al for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold as recited by Claim 5.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

By 

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